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SECTION **Page**

SPILL PREVENTION, CONTROL, AND COUNTERMEASURES
BEST MANAGEMENT PLAN

N O A A

NATIONAL WEATHER SERVICE
Portland RDA Facility
Dixie Mountain, Oregon

Designated Person Responsible for Spill Prevention (DRO):

Printed Name: Steve Todd - MIC

Signature: _____

Date: _____

Phone: 503-326-2340

The Regional Environmental Compliance Officer (RECO) has reviewed the facility and determined that an SPCC Plan is not required per 40 CFR 112. This Plan is developed strictly as a Best Management Plan. The determination is based on :

___**X**__ The facility does not exceed capacity.

_____ The facility meets capacity requirements but, a discharge will not reach navigable waterways.

RECO Printed Name: Thanh Minh Trinh, P. E.
Phone: (206) 526-6647

RECO Signature: _____

Date: _____

PART I - GENERAL INFORMATION

A. GENERAL

This section of the Best Management Practices plan provides general information about the facility.

1. Name:
National Weather Service , Radar Acquisition Facility, Dixie Mountain, Oregon

2. Date of Initial Operation:

1994 — Generator Shelter with Interior Fuel Tanks Installed

3. Location

National Weather Service RDA Site
Street: Dixie Mountain Road, Washington County
City: Approximately 5-miles Southwest of Scappoose
State/Zip: Oregon
Latitude: 45° - 42'- 53" North
Longitude: 122 °- 57'- 55" West
Elevation: 1572 ft. MSL

4. Name and phone number of Owner (POC)

National Weather Service Forecast Office
5241 NE 122nd Ave
Portland, Oregon 97230
Phone: (503) 326-2340

5. Facility Contacts (Environmental coordinator, Area Safety Representative, Alternate, Focal Point, First Responder)

Name	Title	Telephone Number
Brian Alley	Envir. Focal Point	(503) 326-2340
Steve Todd	MIC	(503) 326-2340

B. SITE DESCRIPTION AND OPERATIONS

This section describes the site and its operations.

1. Facility Location, Layout, and Operations

The facility is located in the Tualatin Mountains of Washington County, Oregon, approximately 20 miles northwest of the Portland International Airport and approximately 5-miles southwest of the city of Scappoose, Oregon (Appendix J, Figure 1). The site is on land owned by the NWS. Radar data from this site are transmitted back to the WFO via telephone lines. The NWS site consists of a 135' x 140' parcel of land with a 35' wide road easement for access to the site. Within the site, is a 60' x 90' fenced area containing the 30 meter NWS Radar Tower with a radome and antenna; an Equipment Shelter; a Generator Shelter and an Uninterrupted Power Shelter. The site is flat but has been carved out of a hillside with down slopes towards the south and the east. The surrounding area is wooded and undeveloped.

2. Fuel Usage

Fuel consumption at this remote site varies according to the generator operation. The generator is tested for a one-half hour period each week and it is automatically started if the commercial power is interrupted. The Generator Day Tanks are normally filled once each year with approximately 200 gallons of #1 Diesel Fuel.

3. Fuel Storage

Two 240 gallon, interconnected, steel day tanks are installed in the Generator Shelter to supply diesel fuel to an 80kw emergency generator. The Generator Shelter has sufficient spill capacity to provide secondary containment sufficient to handle all of the oil in the two day tanks.

The NWS has plans to replace the current 1000 gallon, “Convault” Aboveground Storage Tank (AST) with a 500 gallon “Convault” AST. The new AST will be locate in a fenced area adjacent to the west side of the RDA Equipment Building. The AST will meet the Underwriter’s Laboratory Standard 208 5 for protected secondary containment. The Convault AST consists of a primary steel tank, encased in a 6-inch thick reinforced concrete secondary containment vault. The AST is installed on a concrete pad. It has primary and emergency vents, as well as overfill protection that includes an automatic shutoff valve, an overfill alarm and a 7-gallon spill bucket. The AST is provided with an electronic monitoring and alarm system that monitors the interstitial area inside the tank for leakage. The system also monitors for overfill conditions.

4. Piping

Piping for this system goes from the AST to a transfer pump, located in the Generator Shelter, and then into the day tanks. The fuel transfer is automatic and thus the day tanks are maintained in a near-full condition. Fuel for the generator is then provided from the day tanks. There is a fuel return line from the day tanks back to the AST to assure that the day tanks cannot be overfilled and fuel spilled in the event of a failure of the transfer pump to shut down properly. The pipe between the AST and the wall of the Generator Shelter is encased in a 2" PVC pipe to provide secondary containment in the event of leaks in the pipes.

Piping within the RDA shelter is all located in the building, above the tanks, and is fully accessible for inspection and maintenance.

5. Spill Risk

The AST has full secondary containment built into the tank. The Generator Shelter provides full secondary containment for the day tanks which are located in the shelter. The RDA site is a small, flat area, about 100' x 100' which has been carved out of a sloping hillside. All of the area around the site is covered with heavy undergrowth and vegetation and the soil is very porous. The slope away from the site is to the east and to the south. Small spills will be absorbed by the soil immediately around the AST or the Generator Shelter. A large spill may flow to the south and/or to the east and will be absorbed by the soil. If the ground is frozen or saturated with water, the spilled fuel will flow for a longer distance but the chances of it reaching any significant waterway is very small. (See Appendix J, Figure 2). In the event that fuel were spilled from a delivery truck, the flow would be the same as described above. Any required cleanup of contaminated soil would then be accomplished as necessary. The nearest navigable waterway is the Columbia River which is approximately 6 miles to the north.

6. Chemical Storage Locations

In addition to the diesel fuel used for the emergency power generator, this facility also stores chemicals (e.g., oils, paint, solvents, antifreeze, cleaning compounds and pesticides) for the operation, maintenance and testing of station facilities and equipment. These are stored/used in the following location(s):

Location : (Example: Flammable locker next to the coffee mess)
a. Unused oil in original containers — Stored in UPS Shelter.
b. Paint in spray cans — Stored in the UPS Shelter .
c. Station Cleaning Supplies — Stored RDA Building Storage Room.
d. Lubricants in spray cans — Stored in Flammable Locker in the UPS Shelter.
e. Pesticides — Stored in a plastic container in the Flammable Locker.
f. New Batteries — Stored in the UPS Shelter in original containers
g. New Fluorescent Light tubes - Stored in original containers in UPS Shelter.

7. Permits Required (Copies Attached in Appendix H)

- Permits Not required
- Under the Emergency Planning and Community Right-to-Know Act (EPCRA), the State of Oregon Fire Marshall requires that diesel storage at this site be reported and updated on an annual basis. A copy of the Hazardous Substance Information Survey is attached.

Part II - OPERATIONAL PROCEDURES FOR SPILL PREVENTION

A. Tank Refueling Operations. This section discusses the procedures that shall be used during unloading of fuel from the tank truck into the AST to prevent spills. This procedure shall be documented every time refueling occurs using the form found in Appendix A. Copies of this form shall be kept for five (5) years.

1. Ensure that the delivery driver understands the road conditions and the problems associated with delivering fuel to this remote mountain site.

2. The following procedure shall be used **before** fuel unloading: (APPENDIX A)

a. The Facility Manager or his designated representative should determine the available capacity (ullage) of the AST by converting the reading on the fuel gauge to gallons (See Appendix A). This ullage is communicated to the fuel supply contractor and marked in the fueling log.

b. Move spill containment equipment such as booms, spill barriers or spill kits into the unloading area.

c. Block the tank truck wheels.

d. Place drip pans under all pump hose fittings (if applicable) before unloading.

e. The Facility Manager or his designated representative and the delivery driver ensure the fill nozzle is placed in the appropriate AST appurtenance.

3. The following procedure shall be used **during** the fuel unloading period: (APPENDIX A)

a.. The Facility Manager or his designated representative and the delivery driver shall remain with or near the vehicle and the fuel tanks at all times during unloading. Gauges on the AST and the truck, as well as the fueling nozzle, shall be continuously monitored to ensure the ullage is not exceeded. If the audible high-level alarm sounds, stop the unloading procedure immediately to ensure fuel ullage is not exceeded.

4. The following procedure shall be used **after** fuel unloading is completed: (APPENDIX A)

a. Record the amount of fuel transferred to the AST in the log (Appendix A).

b. Drain the fill hose and then ensure that all drain valves are closed (if applicable) before removal of the hose from the tank

c. Pour any uncontaminated fuel in the drip pans, tank truck containment pool, or spill pipe spill bucket container into the AST (if it has the capacity) or dispose of appropriately.

d. Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the tank.

e. Remove the blocks from truck wheels.

f. Place a copy of the fuel-unloading checklist in the SPCC BMP.

PART III - SPILL COUNTERMEASURES AND REPORTING

A. SPILL COUNTERMEASURES

This section presents countermeasures to contain, clean up, and mitigate the effects of any oil spills at this site.

A spill containment and cleanup activity will never take precedence over the safety of personnel. No countermeasures will be undertaken until conditions are safe for workers. The **SWIMS** procedure should be implemented as countermeasures:

S - Stop the leak and eliminate ignition sources.

a. Attempt to seal or some how stop leak if it can be done safely.

b. Attempt to divert flow away from any drainage ditch, storm sewer or sanitary sewer with a spill barrier or the contents of spill kit. The spill kit is located in the Generator Building.

c. Eliminate all ignition sources in the immediate area.

W - Warn others.

a. Yell out "SPILL". Inform the person in-charge at your facility.

b. Account for all personnel and ensure their safety.

c. Notify contacts and emergency response contractor as described in the following section for assistance in control and cleanup.

I - Isolate the area.

a. Rope off the area

M - Minimize your exposure to the spilled material by use of appropriate clothing and protective equipment. If possible, remain upwind of the spilled material.

S - Standby to assist the emergency response contractor.

B. SPILL REPORTING (APPENDIX C):

1. General Notification Procedures For All Spills:

Within 24 hours, the responsible person or designee (on this plan title page or in Part 1, A.5.) is directly charged with reporting **all** oil spills that result from facility operations as follows:

a. In the event of an emergency (e.g., fire, or injury), call **911**.

b. Notify the appropriate persons within your WFO, Regional Office and line office:

National Weather Service:

Mike Jacob, NWS Environmental Compliance Officer (NWSH)

Phone number: **(301) 713-1838 Ext. 165, Jmichael.Jacob@NOAA.GOV**

Olga Kebis, NWS Safety Officer (NWSH)

Phone number: (301) 713-1838 Ext. 173, Olga.Kebis@NOAA.GOV

Robert Kinsinger, Regional Environmental Compliance Coordinator (ECC) in Western Region Headquarters

Phone number: (801) 524-5138 Ext. 223 Email: robert.kinsinger@noaa.gov

c. **NOAA Environmental Compliance and Safety Office Program:** E-mail or call your **RECO**.

WASC Thanh.M.Trinh@NOAA.GOV Phone: (206) 526-6647

d. **LECO – Washington County Emergency Management**

Scott Porter Phone (503) 642-0371

Note: **LECO & RECO** must determine if Federal or State notification is required and follow up accordingly. (The State of Oregon requires notification when a release of petroleum products, into the soil, exceeds 42-gallons **OR** If spilled into the waters of the state, any quantity that would produce a visible oil slick, oil solids, or coat aquatic life, habitat, or property with oil.)

Oregon Emergency Management Division: (800) 452-0311

2. Cleanup Contractor Notification

An emergency response contractor should also be notified to assist with the clean up if necessary. **NWS/WFO at Portland** has identified and contacted the following contractors that are available for an emergency response:

Contractor(s)	Phone Number
• Stayton Environmental	(503) 236-5845
• First Strike Environmental	(503) 620-7773
• Foss Environmental	(1-800) 337-7455

3. Spill Report

Complete a spill report using the format provided in APPENDIX C. Send this to your RECO with a copy to the Western Region ECC.

C. Training

The Environmental/Safety Focal Point and an alternate should be trained in 1)the refueling procedures, 2)countermeasures, and 3)spill reporting. The alternate should be designated in case the primary person is off site at the time of a spill.

(See APPENDIX D for Training Outline and Training Record form)

D. Personal Protective Equipment (PPE)

- PPE information is specified in the **MSDS**
- Eye protection is accomplished by the use of **Chemical Goggles**
- Hand protection is accomplished by the use of **Nitril Gloves**
- Other clothing & equipment - if contaminated, must be removed and laundered before reuse. Items which cannot be laundered should be discarded.
- Appropriate NIOSH-approved respiratory protection to avoid inhalation of mist or vapors which may be present under hot temperature conditions.

APPENDIX A

TANK ULLAGE/FUELING LOG AND FUEL UNLOADING PROCEDURES CHECKLIST

APPENDIX A-1

TANK ULLAGE AND FUELING LOG

Station Name: _____ Tank Capacity: _____ gallons

Date	Initials	Gauge Reading	Initial Volume of Fuel in Tank [a] (Gallons)	Available Capacity or Ullage [b] (Gallons)	Quantity Added (Gallons)	Comments

Notes:

a. From gage reading

b. Available capacity = tank capacity - initial volume of fuel in tank

APPENDIX A-2

FUEL UNLOADING PROCEDURE CHECKLIST

Date: _____ **Tank:** _____

NWS Representative: _____ **Supplier:** _____

√	ITEM	DESCRIPTION	COMMENTS
The following six items must be completed <u>prior</u> to fuel unloading:			
	1	Move spill containment equipment, such as booms or spill barriers, into the unloading area.	
	2	Ensure the audible high-level alarm system and automatic shutoff valve are functioning properly (if applicable).	
	3	Determine the available capacity (ullage) of the tank by converting the reading on the fuel gauge to gallons (see Appendix A-1). The ullage should then be marked in the fueling log and communicated to the tank truck unloading contractor.	
	4	Block the wheels of the tank truck.	
	5	Place drip pans under all pump hose fittings (if applicable) after the hose is hooked up to the tank and before unloading.	
	6	Ensure the fill nozzle is placed in the appropriate tank appurtenance.	
During unloading			
	7	Ensure that the NWS representative and the tank truck operator remain with the vehicle at all times during unloading.	
	8	Monitor the gauges on the tank and the truck continuously to ensure the ullage is not exceeded.	
After fuel unloading is completed			
	9	Record the amount of fuel unloaded in the log (Appendix A-1).	
	10	Before removing the fill hose from the tank, ensure that it is drained and that all drain valves are closed (if applicable).	
	11	Any fuel accumulated in the drip pans or spill container on the fill pipe should be poured into the tank (if it has the capacity) or disposed of appropriately (describe how it was disposed of, if applicable).	
	12	Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the tank.	
	13	Remove the blocks from the tank truck wheels.	
	14	Place a copy of this fuel unloading procedure checklist in the Best Management Plan.	

APPENDIX B

TANK INSPECTION CHECKLIST

MONTHLY INSPECTION CHECKLIST			
Date of Inspection:	**Tank Name or No.:**		
Date of Last Inspection:	**Inspected by:**	**Signature:**	
A. TANKS	**YES**	**NO**	**NOTES**
1. Are tanks marked properly?			
2. Is area atop and around tank and within berm free of combustible materials and debris? stains?			
3. Is there any oil on the ground, concrete, or asphalt around the tank?			
4. Are there any visible cracks or indications of corrosion on the tank, at fittings, joints, or seals (such as paint peeling or rust spots)?			
5. Are there any raised spots, dents, or cracks on the tank?			
6. Does it appear that the foundation has shifted or settled?			
7. Is the fuel gauge working properly?			
8. Are all vents clear so they may properly operate?			
9. If rainwater is present within containment, does capacity remain for spill control, if applicable?			
B. PIPING			
1. Is there any oil on the outside of or under any aboveground piping, hoses, fittings, or valves?			
2. Are aboveground piping, hoses, fittings, or valves in good working condition?			
C. SECURITY/SAFETY/SPILL COUNTERMEASURES			
1. Are lights working properly to detect a spill at night?			
2. Are all locks in the "lock" position?			
3. Are all warning signs properly posted and readable?			
4. Are vehicle guard posts in place and properly secured (if applicable)?			
5. Are spill kits easily accessible, protected from the weather, complete, and replenished if necessary?			
Corrective Actions Required:			

ANNUAL INSPECTION CHECKLIST (Page 1 of 1)				
Date of Inspection:	**Tank Name or No.:**			
Date of Last Inspection:	**Inspected by:**			
	Signature:			
A.	**MONTHLY CHECKLIST**	**YES**	**NO**	**NOTES**
1.	Have monthly inspection checklists been completed?			
B.	**TANKS**			
1.	Are all alarms and automatic shutoff devices working properly?			
2.	Is interstitial monitor functioning properly (if applicable)?			
C.	**OTHER**			
1.				
Corrective Actions Required:				

APPENDIX C

SPILL REPORTING

APPENDIX C

SPILL REPORTING

1. GENERAL

Name of Facility:	Address:
Completed By:	Organization:
Position:	Phone:

2. SPILL INFORMATION

Date:	Time:
Location at Facility:	Quantity:
Substance Spilled:	Other:

3. OUTSIDE NOTIFICATIONS: (Insert telephone numbers)

Agencies	Record the external regulatory agency representative name when making the calls.	Date & Time
Call **911** for emergency assistance		
Regional Management (see Part III Section B subparagraph 1.b) (801) 524-5138 Ext.223		
Line Office Environmental Compliance Officer (see Part III Sectin B subparagraph 1b) (301) 713-1838 Ext 165 or Ext 173		
NOAA, RECO (see Part III Section B subparagraph 1.c) (205) 526-6647		
EPA National Response Center or U.S. Coast Guard : (800) 424-8802		
State of Oregon Emergency Management Division Phone (800) 452-0311		
LECO — Washington County Emergency Management Scott Porter (503) 642-0371		

4. INFORMATION ON SOURCE AND CAUSE

5. DESCRIPTION OF ENVIRONMENTAL DAMAGE

6. CLEANUP ACTION(S) TAKEN

7. CORRECTIVE ACTION(S) TO PREVENT FUTURE SPILLS

Note: All information must be filled in. If something is unknown, write "unknown".
Copies must be sent, preferably by e-mail, to the NWS/NOAA personnel listed above.

APPENDIX D

TRAINING OUTLINE & TRAINING RECORD

APPENDIX D-1

TRAINING OUTLINE: SPILL PREVENTION, CONTROL AND COUNTERMEASURES

Training will be provided for facility personnel at the following times:

1. System startup or whenever new equipment is installed
2. Within the first week of employment for new personnel
3. Annually

The training will include complete instruction in the elements of the facility's Spill Prevention, Control, and Countermeasure plan and will include the following:

1. Pollution control laws, rules, and regulations including a summary of Title 40 of the Code of Federal Regulations Part 112 "Oil Pollution Prevention" (see Attachment)

2. Fuel Storage System

   A. Purpose and application of the following system elements:

      1. Tanks
      2. Piping
      3. Pumps
      4. Accessory equipment
      5. Electronic monitors

   B. Operation, maintenance, and inspection of system elements

3. Spill Prevention

   A. Potential spill sources
   B. Spill flow direction and impact on navigable waters
   C. Procedures to prevent spills, especially during fuel unloading

4. Spill Control

   A. Secondary containment
   B. Safety valves
   C. Pump and equipment shutoff switches
   D. Use of catch basin inlet covers or other diversionary devices

5. Spill Countermeasures

   A. Location and use of emergency phone numbers
   B. Location and use of fire extinguishers
   C. Location and use of spill cleanup kit
   D. Stopping the leak

APPENDIX D-2

TRAINING REPORT FORM

DATE OF TRAINING	EMPLOYEE TRAINED	TRAINER	REMARKS

APPENDIX E

MATERIALS SAFETY DATA SHEET ATTACHMENT

APPENDIX F

SPILL CLEANUP KIT INFORMATION ATTACHMENT

APPENDIX G

FUEL TANK DATA AND INFORMATION

APPENDIX H

PERMITS

APPENDIX I

PHOTOGRAPHS OF FACILITY TANKS AND PIPING

APPENDIX J (MAPS & DRAWINGS)